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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/658,842	09/09/2003	Clyde C. Lunsford	011920-1274	3011

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EXAMINER

SPERTY, ARDEN B

ART UNIT	PAPER NUMBER
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1771

DATE MAILED: 08/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/658,842

Applicant(s)

LUNSFORD ET AL.

Examiner

Arden B. Sperty

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Application filed 9/09/03.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-64 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-64 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____

NON-FINAL OFFICE ACTION

Specification

1. The disclosure is objected to because of the following informalities: The specification repeatedly uses the abbreviation "owf" when referring to residual dye-assistant concentration and phosphorous retention, however the abbreviation is not defined by the specification.

Appropriate correction is required.

Claim Objections

2. The claims are objected to because of the following informalities: The spelling of "greige" is inconsistent with Applicant's own parent applications. In some instances the term is spelled "greige," and in other instances it is spelled "griege." Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1, 4-5, 9, 10, 15, 19, 24, 28, 33, 36, 41, 43- 45, and 54 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

5. Claims 1, 9, 19, 28, 36, and 43, require "inherently flame resistant fibers that were uncrystallized in fiber form." The wording of the limitation is indefinite in many ways. The claim refers to the uncrystallized structure in the past tense, and thus does not describe the final product. It is therefore unclear what implications the uncrystallized

intermediate limitation has on the final product. The past tense language of the claim further implies that the fibers are no longer in fiber form. In other words, if the fibers were uncrystallized in fiber form, what form do they have in the final product? Are they still fibers? Similarly, claims 43 and 54 state that the cellulosic fibers "contained" a flame retardant compound in fiber form. This language is distinctly different from previous independent claims requiring cellulosic fibers "containing" or "that contain" a flame retardant compound, which results in the quandary of what is intended by the distinctly different language of claims 43 and 54. Additionally, the past tense verb form implies that the cellulosic fibers are no longer in fiber form in the final product. Although rejections of only the independent claims are stated, the dependent claims are inherently indefinite from the indefinite independent claims from which they depend.

6. Claims 4, 9, 10, 24, 33, 41, 44, and 45, require a dye-assisting agent, however there is no antecedent basis for a dye. Is the presence of a dye-assisting agent intended to imply that a dye is also present, or does Applicant indeed intend that the invention is fully operational with a dye assistant but without a dye? A dye appears to be critical or essential to the invention, especially where a dye-assistant is present, yet the claims requiring a dye assistant are not drafted to include a dye.

7. Is the phosphorous flame retardant of claim 5 referring to the flame retardant compound contained in/on the cellulosic component? The claim is interpreted as such, but needs to be amended to provide proper antecedent basis for the phosphorous containing compound of claim 5. As drafted, the claim implies that an additional flame retardant compound is provided in addition to what is recited in claim 1. The

specification is not enabled for an additional flame retardant phosphorous containing compound as currently drafted in claim 5. Claims 15 and 19 are rejected under 35 USC 112, second paragraph, on the same grounds as claim 5.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 1-3, 6-7, 28-32, 34, 36-40, 43, 46-49, 51-52, 54, and 57-60 are rejected under 35 U.S.C. 102(b) as being anticipated by US 5356700 to Tanaka et al.

10. The Tanaka reference teaches flame-resistant fabrics (abstract). The fabrics are made of spun yarns comprising a uniform blend of aromatic polyamide fibers, cellulosic fibers, and polyester fibers (col. 2, lines 31-42). Aromatic polyamides used in the fabric include meta-type aramid fibers (col. 2, lines 61-65). The cellulosic fibers may be rayon fibers treated with a flame retarder (col. 4, lines 7-11). Thus the limitations of claims 1-3 are met. The structural requirements of claims 28-32, 36-40, 43, and 46-49 are also met. Although the prior art does not perform the property evaluation recited in claims 6-7, 28, 34, 36, and 51-52 the prior art teaches the claimed structural and material requirements. It follows that the properties associated therewith are inherent.

11. The Tanaka reference further teaches dyeing the fabric (col. 6, lines 7-22), thus meeting the additional limitation of claim 54. The limitations of claims 57- 60 are met as

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stated above with respect to claims requiring the same structure. As stated above with respect to similar claims, although the prior art does not perform the property evaluation recited in claims 62-63, the prior art teaches the claimed structural and material requirements. It follows that the properties associated therewith are inherent.

Claim Rejections - 35 USC § 103

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. Claims 4, 9-14, 16-18, 33, 35, 41, 42, 44-45, 53, 55-56, and 64 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 5356700 to Tanaka as applied above, and further in view of USPN 5306312 to Riggins et al.

14. The Tanaka reference teaches dyeing the disclosed fabric (col. 6, lines 7-22), but is not concerned with the dyeing materials. USPN 5306312 to Riggins teaches a conventional dyeing process, such as the one described by Tanaka at column 6, lines 7-22. Riggins further details the process and materials, describing the claimed dye-assisting agents and purporting their advantageous dyeing effects. Riggins further discusses the advantageous flame-retarding properties imparted to the meta-aramid fibers. Thus it would have been obvious to one of ordinary skill in the art to include the dye-assisting agents taught by the Riggins reference when dyeing the meta-aramid-

containing fabric according to Tanaka. The limitations of claims 4, 9-10, 33, 41, 44-45, 55-56.

15. The structure of claims 11-14, which depend from claim 9, is taught by Tanaka as described above.

16. The properties required by claims 16-17 are inherent to the structure taught by the prior art.

17. Regarding claims 8, 18, 35, 42, 53, and 64, Tanaka is not concerned with the shade depth, or L value, of the dyed product. The depth of shade is a matter of personal preference, and therefore would have been obvious to one of ordinary skill in the art.

Double Patenting

18. Claims 1-64 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-57, specifically 1-7 of U.S. Patent No. 6626964. Although the conflicting claims are not identical, they are not patentably distinct from each other because the pending claims are slightly broader than specifically issued claims 1-7. That which is more broad is inherently anticipated by that which is narrower. The pending claims are more broad than the issued claims despite the inclusion of the term "uncrystallized" in many of the pending claims. The language refers to the uncrystallized structure in the past tense, and thus does not describe the final product. The "uncrystallized" limitation does not render the scope of the claims narrower than the issued claims.

19. Claims 1-64 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1- 30 of U.S. Patent No. 6132476. Although the conflicting claims are not identical, they are not patentably distinct from each other because the pending claims are slightly broader than the issued claims. That which is more broad is inherently anticipated by that which is narrower. The pending claims are more broad than the issued claims because the pending claims do not require blending of the inherently flame resistant and cellulosic fibers. The scope of the pending claims includes fabrics which are not blended, such as woven fabrics comprising separate threads of each material. Therefore, the pending claims are broader than the issued claims of USPN 6132476.

20. Claims 1-64 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1- 26 of U.S. Patent No. 6818024. Although the conflicting claims are not identical, they are not patentably distinct from each other because the final products are the same. The "uncrystallized" limitation of the pending claims does not render the final product different from that claimed by USPN 6818024. The language refers to the uncrystallized structure in the past tense, and thus does not describe the final product. The "uncrystallized" limitation does not render the scope of the claims narrower than the issued claims.

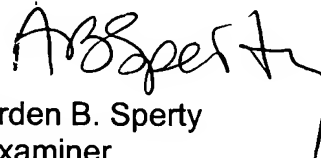
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Arden B. Sperty whose telephone number is (571)272-1543. The examiner can normally be reached on M-Th, 08:00-16:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on (571)272-1478. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Arden B. Sperty
Examiner
Art Unit 1771

August 4, 2005



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